

**Appendix is an integral part of
Certificate of Accreditation No. 623/2023 of 20/11/2023**

Accredited entity according to ČSN EN ISO/IEC 17025:2018:

ČZ a.s.

CAB number 1285, Testing Laboratories Department

Tovární 202, 386 15 Strakonice

Detailed information on activities within the scope of accreditation (determined analytes) is given in the section „Specification of the scope of accreditation“.

Tests:

Ordinal number ¹	Test procedure / method name	Test procedure / method identification ²	Subject of the test	Degrees of freedom ³
1	Vickers hardness test	ČSN EN ISO 6507-1; ČSN EN ISO 6507-4	Metallic materials	-
2	Brinell hardness test	ČSN EN ISO 6506-1; ČSN EN ISO 6506-4	Metallic materials	-
3	Rockwell hardness test	ČSN EN ISO 6508-1; ČSN ISO 3738-1	Metallic materials	-
4	Knoop hardness test	ČSN EN ISO 4545-1; ČSN EN ISO 4545-4	Metallic materials	-
5	Measurement of layer depth of heat and chemical heat-treated steel	ČSN EN ISO 2639 DIN 50190:1978, Part 1; DIN 50190:1979, Part 2, 3	Metallic materials	-
6	Tensile test at ambient temperature	ČSN EN ISO 6892-1	Metallic materials	-
7	Charpy impact test	ČSN EN ISO 148-1, excl. KV ₈ , KU ₈ and excl. Annex C; ČSN EN 10045-1:1998	Metallic materials	-
8	Strength tests of chains	IPMZ 1 (ČSN EN ISO 6892-1)	Roller, sleeve-type and link chains	-
9	Strength tests of welds	IPMZ 2 (ČSN EN ISO 6892-1)	Turbocharger rotors	-
10	Force measurement in loading	IPMZ 3 (ČSN EN ISO 6892-1)	Parts, blanks and joints	-
11	Metallographic determination of non-metallic intrusions	ČSN ISO 4967; DIN 50602:1985, procedure M	Steel	-
12	Determination of layer depth of heat and chemical and heat-treated steel by metallographic method	ČSN 42 0448:1985, excl. chap. III	Steel	-
13	Metallographic determination of depth of decarburization	ČSN EN ISO 3887, cl. 5.2	Steel	-
14	Evaluation of structure	ČSN 42 0461:1975; ČSN EN ISO 945-1; ASTM A247	Cast iron	-

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Ordinal number ¹	Test procedure / method name	Test procedure / method identification ²	Subject of the test	Degrees of freedom ³
15	Microscopic measurement of coating thickness	ČSN EN ISO 1463	Metallic and oxide coating	-
16	Microscopic evaluation of the carbide structure in steel according to image series	SEP 1520	Steel	-
17	Determination of elements by optical emission spectrometry	IPS 1 (Bruker company name)	Ferrous metals and aluminium and copper alloys	-
18	Determination of technical purity – by gravimetry	ISO 16232, excl. cl. 7.5, 9.3; VDA 19.1, excl. cl. 6.5, 8.3	Metallic and non-metallic components for automotive applications	-
19	Determination of technical purity – microscopically	ISO 16232, excl. cl. 7.5, 9.2; VDA 19.1, excl. cl. 6.5, 8.2	Metallic and non-metallic components for automotive applications	-

¹ asterisk at the ordinal number identifies the tests, which the laboratory is qualified to carry out outside the permanent laboratory premises

² if the document identifying the test procedure is dated, only these specific procedures are used. If the document identifying the test procedure is not dated, the latest edition of the specified procedure is used (including any changes)

³ the laboratory does not apply a flexible approach to the scope of accreditation

Specification of the scope of accreditation:

Ordinal test number	Detailed information on activities within the scope of accreditation (determined analytes)
17	Ferrous metals: C, Si, Mn, P, S, Cr, Mo, Ni, Cu, Al, As, B, Bi, Ce, Co, Mg, Nb, Pb, Sb, Sn, Ta, La, Ti, V, W, Zn, Zr, Se Aluminium alloys: Si, Fe, Cu, Mn, Mg, Cr, Ni, Zn, Ti, Ag, B, Ba, Be, Bi, Ca, Cd, Co, Ga, In, Li, Mo, Na, P, Pb, Sn, Sr, V, Zr, Sb, Hg Copper alloys: Zn, Pb, Sn, P, Mn, Fe, Ni, Si, Mg, Cr, Al, S, As, Be, Ag, Co, Bi, Cd, Sb, Zr, Ti, Au, C, Nb, Se, Te

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Explanations:

- IPMZ - Internal testing procedure of mechanical laboratory
- IPS - Internal testing procedure of spectral analysis
- SEP - Stahl-Eisen-Prüfblatt des Vereins Deutscher Eisenhüttenleute (specification issued by the German iron metallurgy expert association)
- VDA - Verband der Automobilindustrie e. V. (specification issued by the German Association of the Automotive Industry)